

REMARKS

Claims 1-5 and 7-18 are pending in the application, and all claims are rejected. With this response no claims are amended, cancelled, or added.

Claims 1-5, 7, 8, 11 and 15 are rejected under 35 U.S.C. § 103(a) as unpatentable over Nakamura et al. (U.S. Patent No. 6,269,087) in view of Chheda et al. (U.S. Patent No. 6,151,512). Claims 9, 10 and 16 are rejected under 35 U.S.C. § 103(a) as unpatentable over Nakamura in view of Chheda, in further view of Trompower et al. (U.S. Patent No. 6,138,019). Claims 12-14, 17 and 18 are rejected under 35 U.S.C. § 103(a) as unpatentable over Nakamura in view of Chheda, in further view of Rozanski et al. (U.S. Patent No. 5,493,563).

Claim Rejections Under § 103

Applicant respectfully submits that Nakamura in view of Chheda does suggest claim 1. Claim 1 is patentable over the cited references because Nakamura at least fails to disclose or suggest measuring the level of interference with signals on each of at least two communication channels from at least two cell site units, but instead only describes measuring the channel receiving level for two channels or measuring interference for only a single channel.

Nakamura discloses a handover type judgement scheme for a CDMA mobile communication system. Nakamura is primarily concerned with determining if a handover should be made, and if so, whether the handover should be the same frequency soft handover, a different frequency soft handover, or a hard handover. The CDMA system operations are mainly upon the same frequency band, and different channels are assigned different codes which enable them to retrieve the modulated signals from the background interference created from the other users' operating over the same frequency band. In Nakamura, a handover is dependent on reception levels measured at the mobile station. See Figure 3. Nakamura determines when a handover should occur based on the difference between the receiving level of the perch channel from each nearby cell with the receiving level of the perch channel of a

currently located cell. See column 1, lines 29-34. When the difference between the received signal strength between the first and second cells reaches a specific value a particular type of handover is selected. However, the handover is not determined on the basis of at least the estimates of the level of interference with signals on each of the at least two communication channels for each of the two or more cell site units, as recited in claim 1.

Furthermore, Nakamura only discloses measuring the interference level from a single cell currently being used for communication with a mobile station, and comparing the measured interference value with a prescribed threshold value. When the measured value is greater than the prescribed threshold value, the mobile station makes the judgement of the handover start condition. See column 6, lines 15-20. However, Nakamura fails to disclose or suggest the mobile station determining an estimate of the level of interference with signals on each of the at least two communication channels from each of the cell site units, as claimed in claim 1. Nakamura only discloses measuring the signal strength on one channel for each base station, or measuring only a single channel to determine interference. Therefore, Nakamura fails to disclose or suggest the handover controller determining to which of the cell site units to hand over traffic communication of the mobile station on the basis of at least the estimates of the level of interference with signals on each of the at least two communication channels from each of the two or more cell site units.

Furthermore, Nakamura fails to disclose or suggest the mobile station receiving signals for each of said two or more cell site units on each of the at least two communication channels, as recited in claim 1. The “uplink” and “downlink” channels are not both received by the mobile station, because the “uplink” channel is received by the base station. See column 6, lines 34-36 (each base station measures the uplink radio channel state for each cell/sector at the measurement unit).

Chheda also fails to disclose or suggest receiving and determining an estimate of the level of interference of a signal on each of at least two communication channels

from each cell site unit. The cited prior art fails to disclose or suggest all the limitations of claim 1, and therefore claim 1 is patentable. See MPEP § 706.02(j).

Independent claims 11 and 16 all contain similar limitations to independent claim 1 that a handover is determined on the basis of at least the estimates of the level of interference with signals on each of the at least two communication channel for each of the at least two cell site units. Therefore, for at least the reasons discussed above in relation to claim 1, independent claims 11 and 16 are patentable over the cited references.

Furthermore, dependent claims 2-5, 7-10, 12-14 and 17 and 18 all depend directly or indirectly from an independent claim, and are patentable at least in view of their dependencies.

Conclusion

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and such action is earnestly solicited.

The Commissioner is hereby authorized to charge to deposit account 23-0442 any fee deficiency required to submit this paper.

Respectfully submitted,



Keith R. Obert
Attorney for Applicant
Registration No. 58,051

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WARE, FRESSOLA, VAN DER SLUYS
& ADOLPHSON LLP
Bradford Green, Building Five
755 Main Street, P.O. Box 224
Monroe, CT 06468
Telephone: (203) 261-1234
Facsimile: (203) 261-5676
USPTO Customer No. 004955